

RF 447,998PAT 4/25/2006

- 2 -

In the claims:

Please amend the claims as shown below:

5 1. (Currently amended) A method used in a computer,  
comprising:

providing a logical theory ~~(12, 30)~~ having clauses;  
~~generating~~ providing a rule ~~(14)~~ that ~~is a resolvent of~~ that  
has been derived from the clauses in the logical theory, and  
10 for which the derivation of the rule is provided in the form  
of a partial proof tree having nodes;  
~~retrieving~~ providing a set of ~~n~~ examples ~~(16)~~;  
~~generating~~ providing derivations of the examples from the  
clauses in ~~a proof tree (18, 40)~~ ~~from the example (16)~~ using  
15 the logical theory (12, 30) in a form of proof trees;  
transforming the~~each~~ proof tree (18, 40) into a database ~~(20,~~  
~~42)~~ of a coverage check apparatus (28) using a first process  
sequence;  
~~converting the rule (14) into a partial proof tree (60) having~~  
20 ~~nodes (62, 54, 66);~~  
transforming the partial proof tree into a database query (22)  
of the coverage check apparatus (28) using a second process  
sequence; and  
executing the query (22, 72) to identify tuples in the  
25 database (20, 42) that correspond to the nodes of the a  
partial proof tree.

2. (Currently amended) The method according to claim 1 wherein  
the method further comprises determining whether the partial  
30 proof tree (60) is identical to a portion of the proof tree  
(18, 40).

3. (Currently amended) The method according to claim 1 wherein  
the method further comprises investigating for each rule ~~(14)~~

RF 447.998PAT 4/25/2006

- 3 -

and each example ~~(16)~~ whether the rule ~~(14)~~ covers the example ~~(16)~~.

5 4. (Currently amended) The method according to claim 3 wherein the method further comprises investigating whether a condition part of the rule ~~(14)~~ is satisfied by the example ~~(16)~~.

10 5. (Currently amended) The method according to claim 1 wherein the method further comprises making the partial proof tree ~~(60)~~ more limiting than the logical theory ~~(12, 30)~~.

15 6. (Original) The method according to claim 1 wherein the method further comprises concluding that the rule does not cover the example when no match is found in database tables.

7. (Original) The method according to claim 6 wherein the method further comprises concluding that the rule does cover the example when a match is found in database tables.

20 8. (Original) The method according to claim 1 wherein the method further comprises determining whether the tuples found in the database are associated with the same example.

25 9. (Currently amended) The method according to claim 1 wherein the method further comprises using the logical theory ~~(12, 30)~~ to describe all possible rules that may be created.

30 10. (Currently amended) The method according to claim 1 wherein the method further comprises the query checker ~~(24)~~ checking whether or not the query ~~(22)~~ gives an empty result.